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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,609	01/17/2002	Brian Lauman	DI-5764 (112713-146)	1135

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EXAMINER

HAYES, MICHAEL J

ART UNIT	PAPER NUMBER
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3767

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No. 10/051,609	Applicant(s) LAUMAN ET AL.	
	Examiner Michael J. Hayes	Art Unit 3767	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowability Withdrawn

The indication of allowability of claims 8-12, made in paper mailed 12/01/05, is withdrawn in view of the new rejections made below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over HICKERSON et al. (US Pub. No. 2003/0004470) in view of FANNON et al. (US Patent No. 5,382,805) and GORDON (US Patent No. 6,261,261). Hickerson discloses a fluid therapy device for flowing fluids through a disposable unit. The device is inherently capable of performing with dialysis in view of the disclosed disposable unit for flowing fluids. Hickerson does not disclose an infrared heater, but describes standard resistance heating elements 6 for heating the flowing fluids. Hickerson also does not disclose a plate heater positioned on the opposite side of a disposable unit from an infrared heater. Fannon teaches an infrared heater having an emitter 18 in a housing 14/54 that has an opening covered by transmissive material (at window 58) to allow infrared energy from the emitter to pass out of the housing for heating. The infrared reflector 54 is along the back of the housing and substantially redirects infrared energy originally directed to the back of the housing toward the inner parts of the infrared heater and

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consequently further toward the transmissive material window (see figs. 4 and 6; col. 4, line 65 - col. 5, line 9). The infrared reflector 54 is positioned on an opposing side of the transmissive material from the infrared heater. Energy that travels out the back of the housing (i.e., opposite the transmissive window) is redirected back into the housing and out the transmissive window toward the fluid to be heated in the disposable unit. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Fannon in the device of Hickerson to provide an inexpensive reliable heater for intravenous solutions. Gordon is relied upon in teaching the motivation to modify a resistance heater to the infrared heater taught by Fannon. Gordon states advantages of infrared heaters over resistance heaters to include improved energy requirements and cost (See Gordon, col. 1, ll. 38-53).

In claims 9 and 10 Gordon teaches the use of plate infrared heaters (see figs. 4, 5) positioned on opposite sides of a disposable cassette to achieve heating of intravenous fluids. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Gordon in the device of Hickerson and Fannon in order to provide an efficient and fast heating device to heat rapidly flowing infusing fluids to a patient. The use of heaters on each side of the infusing fluid will result in quicker heating ability as compared to a heater on only one side.

In claim 11 the infrared absorption material positioned on the opposing side of the infrared transmissive material from the infrared heater is the disposable cassette or cartridge. Infrared energy traveling through the transmissive material will heat elements in its path which will absorb the energy. These additional heated elements (i.e., that absorb the infrared energy) in the fluid device will assist in heating the fluid in the disposable unit.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Hayes at (571) 272-4959. The examiner can usually be reached Monday -Thursday, 7:00-4:30, and on alternate Fridays. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Sirmons, can be contacted at (571) 272-4965. The fax number for submitting official papers is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mjh
7 February 2006

A handwritten signature in black ink, appearing to read "M. Hayes", with a stylized flourish at the end.

**MICHAEL J. HAYES
PRIMARY EXAMINER**